

Electronically Filed

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## GEARBOX ACTUATOR COMPRISING A BEARING FOR THE GEARSHIFT RAILS

### CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application is filed under 35 U.S.C. §120 and §365(c) as a continuation of International Patent Application PCT/DE03/01195, filed April 10, 2003, which application is incorporated herein by reference. This application also claims priority of German Patent Applications 102 15 715.4, filed April 10, 2002 and 102 41 068.2, filed September 5, 2002, which applications are incorporated herein by reference.

### BACKGROUND OF THE INVENTION

[0002] This invention relates to a gearbox actuator with a selector shaft, arranged in a housing and driven by a drive upon which are attached a shift finger and disengaging shaped elements that operate the gearshift rails.

[0003] Usually, the gearshift rails of a gearbox actuator are made of sheet metal and are placed in bearings on both their ends. One problem consists in the following - in case of larger or longer gears, the gearshift rails are subjected to a relatively softly bending bearing.

### OBJECT OF THE INVENTION

[0004] The object of this invention is to design a gearbox actuator such that the gearshift rails will be positioned relatively resistant to bending.

### BRIEF SUMMARY OF THE INVENTION

[0005] This problem is solved by a gearbox actuator with a selector shaft that is driven by a drive and that is arranged in a housing upon which are attached a shift finger and disengaging shaped elements that operate the gearshift rails, whereby, arranged on the housing, is a bearing arrangement that supports and guides the gearshift rails between it.